

REMARKS

Claims 2-6, 10-16, 18-23, 25-33, 35-43, and 45-59 were pending in the present application. Claims 31, 49, 50, and 53-59 have been amended. As a result of this amendment, claims 2-6, 10-16, 18-23, 25-33, 35-43, and 45-59 remain pending. Reexamination and reconsideration are requested in light of the accompanying amendment and remarks.

The rejection of claims 23, 31, 43, 49, and 53 under 35 U.S.C. § 112, second paragraph, as being indefinite has been overcome. Claims 49 and 53 have been amended to recite carboxyl terminated butadiene acrylonitrile adducts, and claims 50 and 54 have been amended to recite amine terminated butadiene acrylonitrile adducts. Claims 58 and 59 have been amended to recite a range of 5-45% unmodified aliphatic amine. Claim 31 has been amended to include the limitations on the materials from claim 56. Applicants submit that claims 23, 31, 43, 49, and 53 are in compliance with 35 U.S.C. § 112, second paragraph, and respectfully request that the rejection be withdrawn.

The rejection of claims 12, 22, 37, 58, and 59 under 35 U.S.C. § 103(a) as obvious over Wanthal (U.S. Patent No. 5,075,034) has been overcome. Wanthal teaches a two component adhesive composition which is curable by induction heating. The presence of an effective amount of conductive carbon black along with an effective amount of an electromagnetic energy absorbing material such as iron oxide in the adhesive composition allows one to reduce the time for induction curing and/or allow the use of low frequency induction generators in the bonding of fiber reinforced engineering thermoset, thermoplastic materials and other plastics. Abstract.

The claim has been amended to recite a hardener “consisting essentially of” the listed components which do not include an electromagnetically absorbing material and optional conductive carbon black. The electromagnetically absorbing material and optional conductive carbon black in the hardener and resin component are necessary for the adhesive to be inductively cured. The claimed invention which does not include an electromagnetically absorbing material or conductive carbon black in the hardener component cannot be cured by induction heating. Thus, the presence of the electromagnetically absorbing material and optional

conductive carbon black in the hardener component materially affects a basic and novel characteristic of the claimed invention.

The examiner admits that “Wanthal fails to explicitly disclose: (58 & 59) wherein after said resin component and said hardener component are mixed and reacted, the cured epoxy adhesive has a tensile elongation at room temperature of greater than 30%; and (22) wherein the epoxy adhesive has a tensile elongation at room temperature of greater than 80%. However, it appears that this would have been inherently satisfied by Wanthal because Wanthal satisfies all of the chemical/material limitations set forth in the instant claims. . . . Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present.” However, as discussed above, the hardener in Wanthal includes electromagnetically absorbing material and optionally conductive carbon black which is not included in the claimed invention. Therefore, the claimed tensile elongation is not inherently satisfied by Wanthal.

The examiner admits that “Wanthal also fails to explicitly disclose: (22) wherein the reactive mixture of said resin component and said hardener component has an initial curing time of about 1.5-2 hours. However, it appears that this would have been inherently satisfied by Wanthal, given the proper curing conditions, because he satisfies all of the chemical/material limitations of the instant invention.” However, as discussed above, Wanthal does not satisfy all of the chemical/material limitations of the claimed invention. Therefore, Wanthal does not inherently satisfy the claimed curing time.

Therefore, claims 12, 22, 37, 58, and 59 would not have been obvious to one of ordinary skill in the art at the time the invention was made over Wanthal.

The rejection of claims 10, 14, 35, 45, and 57 under 35 U.S.C. § 103(a) as being unpatentable over Wanthal in view of Martin (U.S. Patent No. 6,572,971) has been overcome. Martin does not cure the deficiencies of Wanthal. Therefore, claims 10, 14, 35, 45, and 57 would not have been obvious to one of ordinary skill in the art at the time the invention was made over Wanthal in view of Martin.

The rejection of claims 2, 4, 19, 20, 25, 26, 28, 31, 32, 49, 50, and 53-56 under 35 U.S.C.

§ 103(a) as obvious over Wanthal in view of Goel (U.S. Patent No. 4,762,864) has been overcome. Goel does not cure the deficiencies of Wanthal. Therefore, claims 2, 4, 19, 20, 25, 26, 28, 31, 32, 49, 50, and 53-56 would not have been obvious to one of ordinary skill in the art at the time the invention was made over Wanthal in view of Goel.

The rejection of claims 3, 5, 27, and 29 under 35 U.S.C. § 103(a) as obvious over Wanthal and Goel in view of Martin has been overcome. Martin fails to cure the deficiencies of Wanthal and Goel. Therefore, claims 3, 5, 27, and 29 would not have been obvious to one of ordinary skill in the art at the time the invention was made over Wanthal and Goel in view of Martin.

The rejection of claims 47, 48, 51, and 52 under 35 U.S.C. § 103(a) as obvious over Wanthal and Goel in view of Cunliffe (U.S. Patent No. 4,107,142) has been overcome. Cunliffe does not cure the deficiencies of Wanthal and Goel. Therefore, claims 47, 48, 51, and 52 would not have been obvious to one of ordinary skill in the art at the time the invention was made over Wanthal and Goel in view of Cunliffe.

Applicant gratefully acknowledges the examiner's statement that claims 6, 11, 13, 15, 16, 18, 21, 30, 33, 36, 38-42, and 46 would be allowable if rewritten in independent form. Applicant gratefully acknowledges the examiner's statement that claims 23 and 43 would be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, second paragraph and to include all of the limitations of the base claim and any intervening claims. However, this was not deemed necessary in view of the amendments.

Serial No. 10/659,805
Docket ITW 0006 IA/41038.9/14350

CONCLUSION

Applicant respectfully submits that, in view of the above amendment and remarks, the application is now in condition for allowance. Applicant respectfully requests that claims 2-6, 10-16, 18-23, 25-33, 35-43, and 45-59 be passed to allowance.

If the Examiner has any questions or comments regarding the present application, he is invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,
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